

ABSTRACT OF THE DISCLOSURE

An inkjet manufacturing process and device for color filters are disclosed. The invention includes an inkjet head module, a motion platform, an electric field generator, an optical detection system, and a control system. The motion platform can support a filter substrate and have relative motion with respect to the inkjet head module. The optical detection system provides a real-time positioning function so that the inkjet head module can correctly jet and paint ink droplets on the substrate. The electric field generator imposes an electric field on the ink droplets so that the ink droplets become homogeneous because of the electrocapillary effect. The invention avoids the usual design of an ink absorption layer, greatly increasing the accuracy and diffusion homogeneity of the ink droplet painting.